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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/030,571	02/24/1998	CHARLES R. CANTOR	25491-2401G	7542
24961	7590	06/10/2004	EXAMINER	
HELLER EHRMAN WHITE & MCAULIFFE LLP			FORMAN, BETTY J	
4350 LA JOLLA VILLAGE DRIVE			ART UNIT	
7TH FLOOR			PAPER NUMBER	
SAN DIEGO, CA 92122-1246			1634	

DATE MAILED: 06/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No. 09/030,571	Applicant(s) CANTOR ET AL.	
	Examiner BJ Forman	Art Unit 1634	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 27 May 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 70,72-79,92-94,123,124,127-133 and 135-138.

Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

BJ Forman
Primary Examiner
Art Unit: 1634

Continuation of 2. NOTE:

The amendments to independent claims 70 and 74 define the nucleotide sequence as "random". The rejections in the final office action address the previously claimed embodiment wherein the nucleotide sequence was defined as "variable". The terms random and variable differ in their meaning and alter the claimed inventions. As such, the amendments would require further search and consideration.

Applicant's comments regarding the rejections in the final office action have been considered but are not found persuasive for the following reasons.

Regarding the new matter rejection and "wherein the variable sequence is not at the terminus"; Applicant points to Merriam Webster's definition of "within". The definition is acknowledged. However, it is noted that "within" is also in the preceding recitation of the claim defining the sequence and the above recitation is a further defining recitation of the sequence. Applicant also points to the teaching at page 6 wherein it is taught that the random sequence, R, and single-stranded portion, S, of the probe are defined by lengths R and S. The cited passage may encompass S and R of different lengths, but the passages do not teach the newly claimed "variable (or random) sequence not at the terminus". Applicant further points to an embodiment at page 27 wherein the probe is created by two hybridization steps, a ligation step and extension of a primer having a random sequence. Applicant asserts that because the random sequence is extended to copy the target, the resulting product would have a random sequence not at the terminus. The argument has been considered but is not found persuasive because the cited passage does not teach the extended portion is non-random. While the cited passage MAY encompass an embodiment wherein non-random target sequence is copied, the specification does not teach such. Furthermore, the MPEP provides clear guidance regarding negative limitations at 2173.05(i).

Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. See *In re Johnson*, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."). See also *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd* mem., 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion.

Regarding the new matter rejection and "predetermined sequence of fixed and non-fixed positions" and each subarray a selected base of the sequence"; Applicant points to Macevicz (WO90/04652) incorporated by reference and relied upon for support. The passages are noted. However, the arguments are not found persuasive because Applicant appears to be stating that the recitations supported by Macevicz are "essential subject matter". This reliance would not be proper because essential subject matter, relied upon to define the invention cannot be incorporated by reference (MPEP 608.01(p)).

Applicant's arguments regarding the prior art rejections of independent Claims 70 and 74 and claims depending therefrom have been considered but are deemed moot because the arguments address the unentered amendments.

Regarding Claim 127 and claims depending therefrom, Applicant argues that the claimed array, as defined in the specification, provides an array wherein "the number of probes required for a nucleic acid sequence of length k can be reduced from 4k probes to 4(2k-1)". The argument has been considered but is not found persuasive because the reduced probe number is not a limitation of the claim. While the claims are read in light of the specification, limitations from the specification are not read into the claims. Applicant further argues that the cited art does not teach the claimed selected base at a fixed position as instantly claimed. The argument has been considered but is not found persuasive. Applicant appears to be asserting that the "selected base at a fixed position" requires the same base be present at the same position in each sequence of the sub-array. However, the claims are not so limited. The claims merely require a "selected base" at "fixed positions". The claims do not require the same base at the same position.

Continuation of 3. Applicant's reply has overcome the following rejection(s): if entered the amendments to dependent claims 75, 134 and 135 would overcome the rejection under 35 U.S.C. 112, second paragraph.


B.J. FORMAN, PH.D.
PRIMARY EXAMINER